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SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/300,484	09/02/94	HIATT	A 207145
18N1/0425			GRIFFIN, EXAMINER
LYON AND LYON 611 WEST SIXTH STREET 34TH FLOOR LOS ANGELES CA 90017			ART UNIT 1815 PAPER NUMBER 10
			DATE MAILED: 04/25/95

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☒ Responsive to communication filed on 2/10/95 ☐ This action is made final.

A shortened statutory period for response to this action is set to expire THREE month(s), _____ days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input checked="" type="checkbox"/> Notice of Draftsman's Patent Drawing Review, PTO-948. |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449. | 4. <input type="checkbox"/> Notice of Informal Patent Application, PTO-152. |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> _____ |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-38 are pending in the application.
Of the above, claims 32-38 are withdrawn from consideration.
2. ☐ Claims _____ have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 1-31 are rejected.
5. ☐ Claims _____ are objected to.
6. ☒ Claims 32-38 are subject to restriction or election requirement.
7. ☒ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).
12. ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. _____; filed on _____.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

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EXAMINER'S ACTION

Best Available Copy

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The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 1815.

The expression " if referred to " at page 1, line 24 appears to contain a typographical error. Such should be corrected to --- is referred to ---. The specification should be checked carefully for the presence of any other typos.

This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes. Note the objections to the drawings under 37 CFR 1.84 set forth on the form PTO-948 enclosed herewith.

Restriction to one of the following inventions is required under 35 U.S.C. § 121:

I. Claims 1-31, drawn to method for synthesizing a polynucleotide of a predetermined sequence and product produced by such method, classified in Class 536, subclass 25.3.

II. Claims 32-38, drawn to composition of matter comprising enzyme and nucleoside 5'-triphosphate having a removable blocking moiety protecting the 3' position of said nucleoside 5'-

triphosphate, classified in Class 435, subclass 6.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as mutually exclusive species in intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (M.P.E.P. § 806.04(b), 3rd paragraph), and the species are patentably distinct (M.P.E.P. § 806.04(h)).

In the instant case, the intermediate product (composition of matter comprising: (a) a catalytic amount of a template independent enzyme; and (b) nucleoside 5'-triphosphate having a removable blocking moiety protecting the 3' position of said nucleoside 5'-triphosphate) is deemed to be useful as the activated nucleoside 5'-triphosphate precursor of one known nitrogenous base composition which is added to a reaction mixture comprising a template-directed nucleotide polymerase in the manner employed by Melamede (4,863,849) in a method for determining the base sequence of nucleotides (note claim 1 of Melamede) and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the

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inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. § 103 of the other invention.

Applicants are reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 C.F.R. § 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 C.F.R. § 1.48(b) and by the fee required under 37 C.F.R. § 1.17(h).

During a telephonic conversation between the Examiner who made the call and Attorney Jeffrey W. Guise on March 15, 1995 a provisional election was made by said attorney with traverse to prosecute the invention of Group I, claims 1-31. Affirmation of this election must be made by applicant in responding to this Office action. Claims 32-38 stand withdrawn from further consideration by the Examiner, 37 C.F.R. § 1.142(b), as being drawn to a non-elected invention.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 30 and 31 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by each of Miyoshi et al. (4,605,735), Frank et al. (4,689,405), Andrus et al. (4,816,571), and Andrus et al. (5,047,524). No patentable distinction is seen between the polynucleotides having a predetermined sequence produced using the method of claims 1-29 as required by the instant claims and the polynucleotides of each of Miyoshi et al., Frank et al., Andrus et al., and Andrus et al..

Claims 1-31 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims are indefinite and unduly broad in the expressions " a polynucleotide of a predetermined sequence ", " an initiating substrate ", " Sepharose " (claim 9), and " Fractosil " (claim 9). It is not evident what sequence

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is the predetermined sequence. Use of Trademarks in claims is improper absent identification thereof. The claims are not mutually distinct and as such are unduly multiplied. The method of claim 13 is encompassed by the method of claim 12 and the method of claim 25 is encompassed by the method of claim 24. Claim 13 should be amended to be dependent upon claim 12. Claim 25 should be amended to be dependent upon claim 24. Claim 14 recites a improper Markush grouping in the absence of --- and --- at line 5 before " sulfones ". Claim 15 lacks antecedent basis in claim 14 upon which it is dependent for the limitation " a phosphorus containing moiety ". See claim 18 which indicates that said expression is inclusive of phosphoramidate. Claim 21 lacks antecedent basis in claim 19 upon which it is dependent for the " divalent cation ". Claim 21 should be amended to be dependent upon claim 20.

The other documents, set forth on the enclosed forms PTO-892 and PTO-1449, have been considered by the examiner. Such are of interest as further showing the state of the art.

Summary: rejected, claims 1-31; held withdrawn as being drawn to a non-elected invention, claims 32-38.

Any inquiry concerning this communication should be directed to Ronald W. Griffin at telephone number (703) 308-4619.

R.W.Griffin
April 24, 1995

Ronald W. Griffin
RONALD W. GRIFFIN
PRIMARY EXAMINER
ART UNIT 1815